Claim 9 (amended) A reluctance electric machine according to claim 1, characterized in that the stator part (4), on the side directed away from the rotor part (6), has a design (42) for increasing the heat dissipation.

Claim 10 (amended) A reluctance electric machine according to claim 1, characterized in that the coil windings (24), in the winding head portions (38) located on the face side of the stator teeth (12), are formed with flow passages for the cooling medium that are left free between coil winding conductors.

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Claim 11 (amended) A reluctance electric machine according to claim 1, characterized in that the coil windings (24) of the stator part (4) are designed as individual coils that are not interlinked with respect to the magnetic flux.

Claim 12 (amended) A reluctance electric machine according to claim 1, characterized in that a first, internal cooling circuit for circulating the cooling medium and a second, external cooling circuit for circulating another cooling medium are provided, the latter being connected to the internal cooling circuit via a heat exchanger.

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Claim 14 (amended) A reluctance electric machine according to claim 12, characterized in that the internal cooling circuit and the heat exchanger are integrated in terms of space on the reluctance electric machine.